



MIOMBO NETWORK CONFERENCE



LULC changes in miombo woodlands: Transformative actions to enhance ecosystem restoration



PRESENTATION



by

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From

MUKUBA UNIVERSITY
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4th June 2021



INTRODUCTION



- Miombo woodland is the major Land use/land cover with important ecological functions in Africa
- Even though the woodlands play a significant role in cushioning livelihoods,
- Changes in land-use and land-cover (LULC) have had serious implications on the environment, biodiversity and vegetation cover
- LULC is considered the single most important variable posing great threat to global ecological systems ([Tendaupenyu, et al 2017](#)), ecosystem integrity ([Haase et al. 2018](#)) & woodland's potential to provide ecological functions ([Pullanikkatil et al. 2018](#))
- LULC changes are community driven at household level



DRIVERS OF LULC CHANGE



- Major drivers are more inclined to socio-economic constraints
- Agricultural expansion (Kamwi et al 2015; Pullanikkatil et al, 2018; Munthali et al, 2019, Handavu et al, 2019)
- Population increase (Kamwi et al. 2015; Handavu et al, 2019)
- Fuelwood collection & consumption (Luoga et al 2002; Chirwa and Mahamane, 2017)
- Poverty (Munthali et al. 2019)
- Policies (Msofe et al. 2019)



LULC CHANGE IMPACTS



- These LULC changes have serious impact on:
- Floristic structure & composition
- Forest biodiversity patterns
- Maintenance of soil fertility
- Erosion
- & all ecosystem services provided by these ecosystems.



SPECIES RESPONSE TO DISTURBANCE



- Many studies across miombo region have shown that woodland can recover rapidly from disturbance.

E.G

- Zambia: Chidumayo, 1997; Syampungani, 2008; Handavu et al., 2011; Syampungani et al 2016;; Handavu, 2019
- Tanzania: Luoga et al 2003; Sangeda and Maleko, 2018; Matowo et al. 2019; Njoghomi et al 2020; Vyamana et al, 2021
- Zimbabwe: Chinuwo et al 2010
- Mozambique: Montfort et al, 2021
- Overall, studies in the region (Luoga et al 2003; Syampungani et al 2016; Handavu, 2019 & Montfort et al. 2021) reported high regeneration capacity



PRIMARY ISSUES FOR DISCUSSION



Restoration of miombo woodlands requires understanding of the following questions:

- What are the key principles for ecosystem restoration
- Who is at the centre of LULC change?
- How can we effectively enhance success of miombo woodland restoration?
- How does gender dynamics influence adoption of ecosystem restoration interventions?



WAY FORWARD



Restoration of miombo woodlands requires understanding of the following:

- Key role of the human agency on land cover change.
- Developing understanding of various human related factors
- Local ownership of restoration strategies & processes – local community-level (not as national programme)
- Re-invigoration of traditional institution arrangements
- Gender dynamics & its influence on adoption of restoration interventions



THANK YOU
Asante sana